CITIES IN A CHANGING WORLD:
QUESTIONS OF CULTURE, CLIMATE AND DESIGN

• Paper / Proposal Title:
The Discrepancy Between Spatial Pedestrian Accessibility and The Public Actual Demand of Urban Green Space: A Case Study of Guangzhou, China.

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• Abstract (300 words):
With the rapid growth of cities around the world, numerous studies have highlighted the positive effects of accessing urban green space (UGS) in a reasonable distance for both physical and psychological health. Most studies focus on modeling the accessibility of green infrastructure and how people use UGSs. However, researches on the gap between modeling accessibility and the public actual demand of UGS remain under-researched. Applying individual self-rated greenspace use experience, our research provides insights regarding the vulnerable areas lacking greenspace and the neglected practical public’s access to greenspace. Taking 494 park greenspaces in Guangzhou city, the study applies the Analytic Hierarchy Process, Urban Network Analysis, Questionnaire survey with 2360 responses etc. to analyze both the spatial and the actual accessibility of park greenspaces in Guangzhou. The results show that whilst the overall accessibility of the parks is good, there is discrepancy between this and the corresponding perceptual accessibility. One reason can be that there are more factors than just walking distance affecting the public accessing a park. Our research also identifies that the most common visiting frequency peaks while the walking time is from 5
to 15 minutes, which can be a target buffer for planning parks. Moreover, it highlights that the actual walking distance for modeling accessibility is not a single value but varies among different population groups. Therefore, although the single buffer to model the accessibility of pedestrian is common in research, there are issues of how representative it is. It is worth noting that about 12.4% respondents do not prefer their closest park. Other factors influencing people's selection of parks were collected, among which the beautiful scenery makes an important role, whilst the total area of a park was less important and may be overemphasized in previous accessibility modeling studies. The study found a strong correlation (0.77) between respondents reporting that there were parks in an acceptable walking distance from their home location and reporting that these walkable parks meet their needs. However, when expressing these two kinds of data on the map, they show differences in the same area. Discrepancies from this relationship imply other factors also influence the level of acceptance of parks within walking distance. Our results suggest that the measurement of park accessibility should be based on the study of both spatial and perceived accessibility. It indicates the areas with inadequate access to parks are the key areas for enhancing the overall accessibility of parks in Guangzhou.

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